

11th Annual Water and Sanitation Innovations for the Arctic Workshop

Tracing the Pandemic Through Wastewater: Using sewage monitoring to investigate infectious disease

February 2-3, 2021

**A Virtual Workshop Cosponsored by:
U.S. Arctic Research Commission, the Alaska Department of Environmental Conservation and the
Centers for Disease Control and Prevention**

Workshop Objectives

- **Provide an overview of the current state of the science of Wastewater Epidemiology, both globally and nationally**
- **Determine the need for and current/potential uses of Wastewater Epidemiology in Alaska, with special focus on rural, cold climate communities**
- **Discuss testing goals and potential sampling approaches for Alaska's unique and varied remote communities**
 - **Examine the ethics and public engagement sensitivities related to these activities**

Tuesday, February 2nd:

8:30 A.M.

Meeting commences

8:30 - 10:00 A.M.

Session 1: Setting the Stage

8:30-8:45

Introductions/introductory remarks/workshop goals (*C. Rosa, USARC*)

8:45-9:00

Overview specific to the wastewater situation in Alaska/non-conventional systems (*J. Nichols, ANTHC*)

9:00-9:15

Impact of past pandemics on rural Alaskan communities (*K. Erickson, UIC*)

9:15-9:30

Current COVID-19 status update for the State of Alaska (*A. Zink, HHS/SOA*)

9:30-10:00

Group Discussion

10:00 - 10:30 A.M.

Break

10:30 A.M. - 12:00 P.M.

Session 2: Global State of the Art for infectious disease monitoring in sewage

10:30-10:45

Introductory presentation on state of the knowledge and research needs (*C. Gerba, University of Arizona*)

10:45-11:00

International focus: how this technology has been used to monitor infectious disease (and other substances) in the past (*F. Been, KWR*)

11:00-11:15

Biosafety and global cooperation (*D. Gerrity, Southern Nevada Water Authority*)

11:15-11:30	Montana Case Study (<i>B. Wiedenheft, Montana State University</i>)
11:30-12:00	Group discussion
Noon	Adjourn for day

Wednesday, February 3rd:

8:30 A.M.	Meeting commences
8:30 - 10:00 A.M.	Session 3: Wastewater testing potential in Alaska/the Arctic
8:30-8:45	Short welcome and Day 1 recap (<i>C. Rosa, USARC</i>)
8:45-9:00	Pros/cons of wastewater testing and how these may help address community needs (<i>V. Hill, Centers for Disease Control and Prevention</i>)
9:00-9:15	Critical analysis of wastewater epi for a variety of analyses (<i>R. Halden, Arizona State University</i>)
9:15-9:30	Alaska-specific planning in place/envisioned (<i>B. Briggs, UAA</i>)
9:30-9:45	Small community sampling (<i>L. Sowa, Juneau Engineering</i>)
9:45-10:00	Hoonah example (<i>D. Gray, City of Hoonah</i>)
10:00 - 10:15 A.M.	Break
10:15 A.M. - 12:00 P.M.	Session 4: Discussion Panels (<i>Panel Members TBA</i>)
10:15 A.M. - 11:00A.M.	Panel 1: Forecasting the virus (panel information TBD)
11:00 A.M. - 11:15A.M.	Break
11:15 A.M. - 12:00 P.M.	Panel 2: Sampling approach/community goals in Alaska (panel information TBD)
Noon	Adjourn